

In the Specification:

Please amend paragraph 2 on page 9 of the application as follows:

The output of the A/D converter is operably connected to an electronic computer 36 in the apparatus for performing a series of signal processing steps leading to the identification of spectral components that are diagnostic of the sample material to be identified, as will be described. The computer includes a digital signal processing module 35 which designed for high speed signal processing operations as will be described. Also included in the computer is a data-storage device 37, such as a conventional thin-film storage device 37 for storing, for each of one or more preselected materials including the selected material, a data set containing low-frequency spectral components that are (i) in a selected frequency range between DC to 50 khz, and (ii) characteristic of that material. This data set is generated by recording and processing low-frequency signals from a selected material under conditions of high magnetic and electromagnetic shielding, using the low-frequency recording device described in PCT application Application _____, No. PCT/US03/09544, filed March 28, 2003, for "System and Method for Characterizing a Sample by Low-Frequency Spectra," which is incorporated by reference herein. Further details are provided below in the section "Generating Signals".